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09/753,855	01/03/2001	Mark C. Chu-Carroll	YOR920000155-US2	1763

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Anne Vachon Dougherty
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EXAMINER

ORTIZ, BELIX M

ART UNIT PAPER NUMBER

2164

DATE MAILED: 05/18/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/753,855

Applicant(s)

CHU-CARROLL ET AL.

Examiner

Belix M. Ortiz

Art Unit

2164

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 May 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10, 15-36, 38 and 39 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10, 31-36 and 39 is/are rejected.
- 7) ☒ Claim(s) 15-30 and 38 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:

- ☐ Certified copies of the priority documents have been received.
- ☐ Certified copies of the priority documents have been received in Application No. _____.
- ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.



SAM RIMELL
PRIMARY EXAMINER

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Remarks

1. In response to communications files on 2-May-2005, claims 11-14 and 37 are cancelled and claims 1, 3-7, 9, 31, and 39 are amended per applicant's request. Therefore, claims 1-10, 15-36, and 38-39 are presently pending in the application.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. Claims 7-10, 31-35 and 39 are rejected under 35 U.S.C. 102(e) as being anticipated by Hanzek (U.S. patent 6,654,726).

As to claim 7, Hanzek teaches a method for linking heterogeneous data structures (see figure 9), the method comprising:

providing a first program with a first set of data in a first data structure (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message));

providing second program with the first set of data in a second data structure (see figure 9, character 904, where the second program is the parser and it receives first set of data (XML data) in a second format (XML message));

receiving information indicating a change in one of the first and the second data structures to a third data structure (see figure 9, character 906, where the dispatcher receives the changes first data structure and further changes the data into a third data structure (search parameters)); and

modifying the one of the first and the second data structure into fourth data structure in correspondence with the third data structure (see figure 9, characters 612 and 908, where these further modified by searcher to produce a fourth data structure (search result)) by applying an asynchronous subscription based event notification for rendering the fourth data structure (see column 28, lines 62-67).

As to claim 8, Hanzek teaches wherein the step receiving information includes the first program sending the information (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message)).

As to claim 9, Hanzek teaches a method for linking heterogeneous data structures (see figure 9), the method comprising:

providing a first program with a first set of data in a first data structure (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message));

providing second program with the first set of data in a second data structure (see figure 9, character 904, where the second program is the parser and it receives first set of data (XML data) in a second format (XML message));

receiving information indicating a change in one of the first and the second data structures to a third data structure (see figure 9, character 906, where the dispatcher receives the changes first data structure and further changes the data into a third data structure (sear parameters)); and

modifying the one of the first and the second data structure into fourth data structure in correspondence with the third data structure (see figure 9, characters 612 and 908, where these further modified by searcher to produce a fourth data structure (search result)) by applying an asynchronous

subscription based event notification for rendering the fourth data structure (see column 28, lines 62-67).

As to claim 10, Hanzek teaches wherein the step of receiving information comprises the first program sending the information (see figure 9, character 902, where the first program is the listener and it receive first data (XML data) in a first format (XML message)).

As to claim 31, Hanzek teaches a method of creating replicas in computing environment comprising least a first and a second machine (see figure 7B, characters 601 and 632), the method comprising:

moving data from a first machine to a second machine to form the replica (see figure 8, 10, and 11); and

communicating an updating event on the first machine to the second machine to keep the data consistent, the updating event being associated with the data (see column 2, lines 19-30) and comprising an asynchronous subscription based event notification for updating the data (see column 289, lines 62-67).

As to claim 32, Hanzek teaches wherein the replica includes only a portion of the data (see column 2, lines 25-26).

As to claim 33, Hanzek teaches wherein the data is in a first form on the first machines and the replica is transformed into a second form on the second machine (see figure 8, 10 and 11 and column 14, lines 26-31).

As to claim 34, Hanzek teaches the method as recited further comprising communicating an updating event on the second machine to the first machine keep the data consistent (see column 14, lines 26-33).

As to claim 35, Hanzek teaches wherein the step of moving includes responding to least one query (see column 3, lines 61-67).

As to claim 39, Hanzek teaches a computing architecture for providing replicated data structures (see column 14, lines 26-28) comprising:

a server comprising an event management component having at least one event handler, a query management component having at least one query handler and at least one server database location for storing server data (see column 7, column 46-54); and

a client comprising a query generator, an event management component having at least one event handler, a user interface, and a dynamic parsing component with at least parser extension for accessing the server data (see column 7, lines 44-64 and column 13, lines 30-37) and for applying an asynchronous subscription based event notification whereby arbitrary data

structure can be rendered into a standard communication format by applying the contents of the asynchronous subscription based event notification (see column 289, lines 62-67).

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claim 36 is rejected under 35 U.S.C. 102(b) as being anticipated by Kessenich et al. (U.S. patent 6,055,538).

As to claim 36, Kessenich et al. teaches an apparatus for dynamically parsing structured documents (see abstract and column 3, lines 27-40), the apparatus comprising:

A plurality of parsers, each parser for parsing a particular structured document type (see figure 8, character 808 and column 3., lines 27-40);

a registry for associating each of said parsers with a corresponding document type (see figure 8, character 808; column 7, lines 50-65; and column 8, lines 36-46);

a recognizer to recognize the document type of each structured document (see column 3, lines 27-31); and

an invoker, which for each structured document invokes one of said parsers appropriate to parse said structured document (see figure 8, characters 808 and 810).

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1-6 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kessenich et al. (U.S. patent 6,055,538) in view of Hanzek (U.S. patent 6,654,726).

As to claim 1, Kessenich et al. teaches a method performing dynamic parsing of structured documents using a plurality of parsers, each parser for parsing a particular structured document type (see abstract and column 3, lines 27-40), the method comprising:

associating each of the parsers with a corresponding document type in a registry (see figure 8, character 808; column 7, lines 50-65; and column 8, lines 36-46);

identifying a document type for the first structured document (see abstract and column 3, lines 27-31);

accessing the registry to find an extension component comprising one of the plurality of parsers to process the first structured document (see figure 8, characters 800-808); and

invoking the extension component upon the first structured document to generate a usable in-memory data structure (see figure 8, character 828 and column 9, lines 22-28).

Kessenich et al. does not teach obtaining a first structured document.

Hanzek teaches communication schema of online system and method of status inquiry and tracking related to orders for consumer product having specific configurations (see abstract), in which he teaches obtaining a first structured document (see figure 9, characters 902 and 904).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kessenich et al. to include obtaining a first structured document.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kessenich et al. by the teaching of Hanzek, because obtaining a first structured document, would enable the method to select the first document that is associated with the parser that is going to be executed.

As to claim 2, Kessenich et al. as modified teaches where the structured document is written in XML (see Hanzek, figures 9 and 10 and column 14, lines 34-38).

As to claim 3, Kessenich et al. teaches a method for generating heterogeneous data structures using a plurality of parsers, each parser for parsing a particular structured document type, and a registry for associating each of the parsers with a corresponding document type (see abstract; figure 8, characters 800-808; column 7, lines 50-65; and column 8, lines 36-46), the method comprising:

 sending a first document of a first document type including data from the first data structure to the second program (see figure 8);

Kessenich et al. does not teach having a first program and a second program, the first program having a set of structured data in a first data structure usable only by the first program; and

 employing dynamic parsing to parse the data from the first data structure of the first document into a second data structure for use by the second program.

Hanzek teaches communication schema of online system and method of status inquiry and tracking related to orders for consumer product having specific configurations (see abstract), in which he teaches having a first program and a second program, the first program having a set of structured

data in a first data structure usable only by the first program (see figure 9, characters 902 and 904, where "first program" is read "listener" and "second program" is read "parser"); and

employing dynamic parsing to parse the data from the first data structure of the first document into a second data structure for use by the second program (see figure 9, where the dynamic parsing and parses the message into a second data structure sent to the dispatcher).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kessenich et al. to include having a first program and a second program, the first program having a set of structured data in a first data structure usable only by the first program; and

employing dynamic parsing to parse the data from the first data structure of the first document into a second data structure for use by the second program.

It would have been obvious to a person having ordinary skill in the art at the time the invention was made to have modified Kessenich et al. by the teaching of Hanzek, because having a first program and a second program, the first program having a set of structured data in a first data structure usable only by the first program; and

employing dynamic parsing to parse the data from the first data

structure of the first document into a second data structure for use by the second program, would enable the method because parses the document and builds a database file that permit rapid searching.

As to claim 4, Kessenich et al. as modified teaches the method used for e-commerce (see Hanzek, column 1, lines 52-53).

As to claim 5, Kessenich et al. as modified teaches where the step of sending includes obtaining a request and responding to the request (see Kessenich et al. figures 9 and 10).

As to claim 6, Kessenich et al. as modified teaches where the step of parsing performed by the second program (see Hanzek, figure 9).

Allowable Subject Matter

8. Claims 15-30, and 38 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
9. The following is a statement of reasons for the indication of allowable subject matter:

The prior art of record, Hanzek (U.S. patent 6,654,726) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

An architecture neutral system for building clients that access a legacy system, the neutral system comprising:

at least one client location;

at least one server location;

bi-directional communication link connecting each of the at least one client and server for transmitting two kinds of messages, a first message being a synchronous query/response, and a second message being an asynchronous subscription based event notification, whereby arbitrary data structure a can be rendered into a standard communication format applying the contents of an asynchronous subscription based event notification for providing synchronous query/response communications, as claimed in claim 15.

Claims 16-20 are objected to as being dependent from the objected to dependent claim 15.

The prior art of record, Hanzek (U.S. patent 6,654,726) do not disclose, teach, or suggest the claimed limitations of (in combination with all other features in the claim):

A method for building clients that access a legacy system, the method comprising:

forming a simple bi-directional communication link between each of the clients and a server; and

transmitting along the communication link two kinds messages, a first message being synchronous query/response, and a second message being an asynchronous subscription based event notification, to allow arbitrary data structures to be rendered into a standard communication format, as claimed in claim 21.

Claims 22-30 and 38 are objected to as being dependent from the objected to dependent claim 21.

Response to Arguments

10. Applicant's arguments filed 2- May- 2005 with respect to the rejected claims in view of the cited references have been fully considered but they are not found persuasive:

In response to applicants' arguments that "Hanzek, provides no to teaching of identifying a document type", the arguments have been fully considered but are not deemed persuasive, because Kessenich et al. teaches "The building of the database is performed by a database builder process of the present invention. The builder process parses the collection of text documents to identify symbols (also referred to herein as tokens or keywords)

within the collection of text documents. The parser may be generalized so as to enable useful parsing of a wide variety of textual document formats.

Preferably, a plurality of parsing components are associated with the builder process. Each parser component of the builder process is optimized for parsing of a particular type of document. The database file of search keys is built from the parsed documents. The documents may be parsed to a tokenized level that encompasses literally every word of a text document (or less than every word if desired by the user)", (see Kessenich et al., column 3, lines 27-40).

In response to applicants' arguments that "Hanzek does not teach that multiple extension components are available to process different document", the arguments have been fully considered but are not deemed persuasive, because Kessenich et al. teaches "element 808 is next operable to select an appropriate parser for the file presently being processed. As noted above, the database builder process may be associated with one or more parsing processes. Each parsing process may be optimized for parsing a particular form or type of source document. Element 808 is therefore operable to determine the type of file presently being processed and to select a preferred parser in association therewith. Those skilled in the art will recognize that a parser process may be generalized so as to be capable of processing any of several source file types", (see Kessenich et al., column 8, lines 36-46).

In response to applicants' arguments that "Hanzek does not teach invoking a selected extension component to generate a usable in-memory data structure", the arguments have been fully considered but are not deemed persuasive, because Kessenich et al. teaches "generate persistent store database file from in-memory data", (see Kessenich et al., figure 8, character 828 and column 9, lines 22-28)).

In response to applicants' arguments that "Hanzek does not teach a method for generating heterogeneous data structures", the arguments have been fully considered but are not deemed persuasive, because Hanzek teaches the first program is the listener (902). It receives structured data on the form of XML messages. The second program is the parser (904). It employs the dynamic parsing and parses the message into a second data structure sent to the dispatcher, (see Hanzek, figure 9).

In response to applicants' arguments that "Hanzek does not teach having a first program and a second program", the arguments have been fully considered but are not deemed persuasive, because Hanzek teaches the first program is the listener (902). It receives structured data on the form of XML messages. The second program is the parser (904). It employs the dynamic parsing and parses the message into a second data structure sent to the dispatcher, (see Hanzek, figure 9).

In response to applicants' arguments that "Hanzek does not teach that a third data structure be create by changes to either a first or a second data structure and that, in response to the changes, a fourth data structure is automatically created", the arguments have been fully considered but are not deemed persuasive, because Hanzek teaches the first program is the listener and It receives (XML data) in a first format (XML message). The second program is the parser and it receives the first set of data (XML data) and converts it to a second data structure (message content). The dispatcher receives the changes first data structure and further changes the data into a third data structure (search parameters). These are further modifies by the searcher to produce a fourth data structure (search results), (see Hanzek, figure 9).

In response to applicants' arguments that "Hanzek does not suggest associating each data object with a unique ID and with a location in a virtual table data structure", the arguments have been fully considered but are not deemed persuasive, because Hanzek teaches FIGS. 37A and 37B is a diagram of an embodiment of the user session message format for transmitting user online session data to the report process. A user session tag 2100 is the top-level tag of the message. A session start parameter 2102 includes session ID 2103, a visitor descriptor 2104, a source application identifier 2105, a browser indicator 2106, an IP (Internet protocol) address 2107 of the user, and a reference 2108

field with additional description 2109 and IP address 2110 parameters, (see Hanzek, column 31, lines 1-9).

"Each symbol entry 204 includes identification of the symbol (or keyword also referred to herein as token) as well as a pointer to a list of file entries 206", (see Kessenich et al., column 63-66).

Conclusion


11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Belix M. Ortiz whose telephone number is (571)-272-4081. The examiner can normally be reached on moday-friday 9am-5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dov Popovici can be reached on (571)- 272-4083. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

bmo

May 12, 2005.


SAM RIMELL
PRIMARY EXAMINER